Interventions/Outcomes Involving
Teacher Leader Selection

Excerpted from Coggins, C.T., Stoddard, P., & Cutler, E. (2003). *Improving instructional capacity through field-based reform coaches*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

This paper describes a new capacity-building role designed to promote tighter connections between the macro aspects of instructional leadership and more micro-level classroom practices. Positions for "reform coaches" have been developed in a number of schools and districts in the Bay Area School Reform Collaborative (BASRC), a foundation- funded non-profit school reform organization that provides grants and professional development support to schools and districts in the San Francisco Bay Area. Here, we examine the reform coach role, the functions it provides to the system, and its potential as a capacity-building strategy. Because the coach role is focused on *capacity building*, it is important to clarify how we define this term at the outset. Building capacity in a school refers to the development of skills and knowledge in both individuals and in the organization as a whole. It often involves creating new structures and roles to broaden participation. Building capacity for changed practice is a critical, through often underspecified, aspect of instructional leadership. It involves:

- Building capacity for instructional leadership at the school level
- Managing knowledge resources by, for example, connecting teachers to relevant academic research or organizing student data into a format that is accessible to teachers
- Direct coaching of teachers on topics related to their practice, such as literacy or differentiated instruction
- Building capacity for instructional support amongst teachers to support their peers

These functions are based both on our observations of the actual enactment of the role by the coach, as well as our interpretation of the roles they play that are distinct from other factors in their schools.

Excerpted from Copeland, L.L. & Gray, R.C. (2002). Developing Maryland's technology education leaders for the 21st century: Technology Education Leadership Project (TELP). *Journal of Industrial Teacher Education*, 39(3), 104-121.

The Technology Education Leadership Project (TELP) is a statewide project designed to enable technology education teachers to more effectively deliver instruction that results in students achieving the technology outcomes identified by the State of Maryland. TELP addressed a long-term goal of Maryland educators to enhance technology literacy for all students by integrating the study of mathematics, science, and technology as a required component of the educational program.

The process for identifying the need for the Technology Education Leadership Project included the results from the 1993 to 1997 surveys of Maryland's technology education supervisors. As a follow-up to those surveys, the TELP evaluator developed another survey to determine the effectiveness of the project and to identify future needs as rated by technology education supervisors.

One of the primary objectives of TELP was to provide in-service professional training and teacher enhancement for more than 400 Maryland technology education teachers. Areas of instructional focus included the Core Technologies, teaching/learning strategies, and leadership. Ninety technology education teachers were selected from school districts across Maryland to become Teacher Leaders. The Teacher Leaders received intensive training and would later deliver local in-service to other teachers. The project involved five components: (a) summer institutes, (b) local planning teams, (c) weekend institutes, (d) local in-service training, and (e) evaluation and follow-up. Over a three-year period, Teacher Leaders participated in four weeks of summer institutes and twelve weekend leadership sessions during each school year. During year three, Teacher Leaders, with the assistance of administrators, planned and delivered ten days of in-service training for teachers in their school systems.

Teacher Leaders' Intervention: Over a three-year period, Teacher Leaders participated in four weeks of summer institutes and twelve weekend leadership sessions during the school year. Teacher Leaders received 60 clock-hours of instruction on the Core Technologies [(a) mechanical technology, (b) electrical technology, (c) electronic technology, (d) structural technology, (e) fluid technology, (f) optical technology, (g) thermal technology, (h) biotechnology, and (i) materials technology], 43 hours of instruction on teaching/learning strategies, 15 hours of instruction on information systems, and 36 hours of instruction on facilitative leadership. Participants could earn up to six college credits for completing all phases of the Project.

Teachers' Intervention: With the assistance of administrators, Teacher Leaders planned and delivered ten days of in-service training for teachers in their school systems. Teacher Leaders were responsible for conducting ten days of local in-service training for technology teachers in their districts. Each school district established a Local Planning Team to plan and deliver 60 hours of in-service to technology teachers. Recruitment difficulties at the local level, however, resulted in a participation rate that was far below

the number projected in the initial proposal, which anticipated 25 teachers from each larger district and half that number from smaller districts.

An experienced external evaluator coordinated all aspects of the project evaluation, including gathering formative and summative data. The evaluator's first task was to develop a Change Agent Survey, which was completed by each Teacher Leader during the first three months of the project. This survey established baseline data on all Teacher Leaders to determine their level of understanding and current use of the Core Technologies and teaching/learning strategies. It also addressed the leadership activities of the Project participants. Responses on this survey have been compared with responses on an identical survey given near the end of the project. The follow-up survey provided data on the Project's impact on teacher knowledge and changes in their instructional delivery. Surveys were mailed to 79 Teacher Leaders, with 57 returned for a total response rate of 72% for Change Agent Survey 2. Teacher Leaders were also required to evaluate the instruction and content delivery at the conclusion of each weekend and summer institute. This formative data was used to improve future activities.

Excerpted from Fancsali, C. (2004). *Teacher Leaders for Mathematics Success (TL=MS). Final evaluation report.* New York, NY: Academy for Educational Development.

Teacher Leaders for Mathematics Success (TL=MS) is a five-year project designed to build the capacity of Bronx teachers and schools in supporting continued improvement in mathematics education for all students in a standard-based environment. The project, implemented by the Institute for Literacy Studies at Lehman College and funded by the National Science Foundation., seeks fundamental educational change by enhancing the understanding of mathematics content, standards-based curriculum, and performance standards, as well as student-learning strategies among teachers, principals, and other administrators.

The project facilitates discourse about and reflection on the relationships between content knowledge, pedagogy, student learning, and school change. Its goal is to create conditions for institutionalizing teacher leaders as agents for instructional reform in mathematics within schools and districts. It is founded on the notion that "effectiveness of mathematics teaching and learning is a function of teachers' knowledge and use of mathematical content, of teachers' attention to and work with students, and of students' engagement in and use of mathematical tasks" (National Research Council, 2001). Working with three cohorts of approximately 20 schools and 80 teacher and administrator participants each, the project is organized around three schools and 80 teachers and administrator participants each, the project is organized around three levels of activities across three years for each participating cohort.

Level one immerses participants in an intensive study of mathematics topics aligned with standards-based curricula implemented in the schools, and their relationship to performance standards and student learning. During this first year, all participants are asked to attend a 60-hour summer institute. Once the school year begins, participants attend monthly Saturday seminars (eight Saturdays for six hours each) and work with a teacher consultant on a biweekly basis. The teacher consultant provides a range of services, including meeting with, and conducting observations of, teachers, facilitating team meetings, coteaching classes, and assisting in lesson and project planning. The teacher consultants also provide support to school in lesson and project planning. The teacher consultants also provide support school administrators and the district by participating in meetings, facilitating discussions, and conducting workshops. Through this immersion, participants enhance their understanding of mathematical concepts as well as develop effective strategies to teach these concepts in the classroom.
In level two, during the second year, TL=MS focuses on curriculum and leadership development as well as the development of mathematics "leadership action plan" for the school. Participants continue to attend professional development sessions on Saturdays and after school, and teacher consultants continue to visit the school, although less frequently. During this second year, TL=MS participants also involve other teachers and administrators in their school in mathematics reform. In level three, the third and final year of each cohort's involvement, participants focus on implementing their school's leadership plan and sustaining school-based leadership.

To recruit schools and participants, TL=MS staff made presentations at pricnipals' conferences in each Bronx district to outline program objectives and clarify criteria for nominating schools and team members. Schools were encouraged to nominate teams tat included three teachers and team members. Schools were encouraged to nominate teams that included three teachers representing a mix of experienced and new teachers and a staff developer or administrator. Schools submitted applications to participate in the program to a steering committee comprised of district mathematics coordinators, district principals, the principal and co-investigators of the project, and Lehman College faculty. The committee selected schools for participation based on the following criteria: 1) school readiness, commitment to reform, and capacity; and 2) teacher, staff developer/administrator preparation and experience, in-service professional development related to nationally validated curriculum, and degree of exposure to standards-based curricula (Source: TL=MS project summary, Lehman College, undated). Participants received tuition-waved graduate credit or stipends for their involvement.

Excerpted from Gigante, N.A., Firestone, W.A. (2007). Administrative support and teacher leadership in schools implementing reform. *Journal of Educational Administration*, 46(3), 302-325.

This paper aims to explore how teacher leaders help teachers improve mathematics and science teaching. Research focused on a purposive sample of seven teacher leaders selected to vary in their time allocated to teacher leader work and their content knowledge. Each teacher leader was interviewed, as were two teachers and at least one administrator working with that teacher leader. Each interview was first subjected to a mix of deductive and inductive coding before a case study was written for each teacher leader. Teacher leaders conducted two sets of leadership tasks. The paper finds that support tasks helped teachers do their work but did not contribute to teacher learning. Developmental tasks did facilitate learning. All teacher leaders engaged in support tasks, but only four did developmental tasks as well. Teacher leaders who engaged in developmental tasks had access to one material resource and three social resources not available to other teacher leaders: time to work with teachers, administrative support, more positive relations with teachers and opportunities to work with teachers on professional development.

Methods

This study is part of a larger study of teacher leadership undertaken in the context of the implementation of the New Jersey Math Science Partnership. The New Jersey Math Science Partnership (NJ MSP) was a collaboration among two universities and 11 school districts to improve students' achievement in mathematics and science across all grade levels. An important theme of the partnership was to strengthen organizational support of inquiry-oriented instruction. One way to do that was to conduct summer institutes for teacher leaders. In conjunction with these institutes, the NJ MSP encouraged partner districts both to integrate teacher leaders into their school improvement planning and to provide teacher leaders with the support needed to effectively sustain such improvement.

This study was conducted in a qualitative research tradition, specifically as a comparative case study using a naturalistic approach (Marshall and Rossman, 1999). Information about teacher leaders' work and the organizational factors influencing teacher leaders' roles was collected from teacher leaders and other informants in the setting. Interaction with these participants in their naturalistic settings helped to better understand the situational factors at play within these contexts (Spillane et al., 2001).

Sample

The population from whom the sample was taken was the group of teacher leaders who participated in the 2004 Teacher Leader Institute (TLI). Purposeful sampling (Patton, 1990) was used to select the teacher leaders who would be "information rich" in terms of this particular study, three colleagues of each, and both the district administrator and building administrator of each. The teacher leader's description of whom he/she most closely worked with determined the persons contacted for

interviews at each level. Each teacher leader provided names of his/her colleagues, three of whom were contacted for interviews.

This study was part of a larger investigation of teacher leadership by the NJ MSP. The larger study called for selecting teacher leaders who vary on two dimensions. The first was the amount of time teacher leaders are formally released to work with their colleagues. In previous studies, release time has been a substantial influence on the success or failure of a teacher leadership initiative (Lord and Miller, 2002). Release time affected teacher leaders' opportunity to interact with their colleagues as part of their teacher leadership work. The other dimension on which teacher leaders were sampled was their content expertise (see Table I).

Seven teacher leaders from the 11 NJ MSP school districts who participated the TLIs during the summer of 2004 were chosen for this study. Three of these seven participated in the 2003 TLI and a pilot study conducted that year; therefore, in these three cases, longitudinal data were utilized. All the teacher leaders worked with teachers in kindergarten through grade eight. Six teacher leaders came from school districts that were among the poorest in the state. Five of these districts had student bodies that were predominantly Hispanic. The seventh teacher leader came from a district that was in the middle of the state's income distribution and was predominantly white.

In addition to the teacher leaders, information was obtained from 19 colleagues of the teacher leaders (one to three for each of the seven teacher leaders) and 13 administrators with whom the teacher leaders worked (one was the district administrator for two of the seven teacher leaders). Some colleagues and administrators whose names teacher leaders provided to the researchers did not return calls and/or e-mails requesting their participation. In addition, one teacher leader in the non-content expert/no release time category requested that the researcher not speak to her building administrator.

Excerpted from Howe and Stubbs. (2003) Science Teachers to Teacher Leader: Leadership Development as Meaning Making in a Community of Practice. ***Science Education 87(2), 281-297.***

An extensive body of literature on educational leadership focuses on administrators who manage educational systems with sizes ranging from large school districts to individual schools. The line of authority runs down from the district superintendent, through one or more layers of administrators, to the principal and then to the teachers. These leaders are part of a hierarchical system where administrators at one level report to a person or board at the next higher level: Teachers from the lowest level of this hierarchy. "In traditional schools", writes Lambert (1995), "lines of authority are usually clear, with the principal… as the decision-maker, policy-setter, and taskmaster" (p.5). This emphasis on the managerial aspects of leadership is not found in all countries but is dominant in the United States.

We have approached this educational leadership from a different perspective, examining leadership that is not hierarchical but is based on engagement in a shared enterprise, the teaching of science. In this article, we examine the process through which three science teachers became active, effective teacher leaders in their schools, in professional organizations, and in other areas of their lives. Their development and emergence as teacher leaders was an unexpected outgrowth of participation in SCI-Link, a professional development program that focused on improving teachers' science knowledge, improving their teaching of science, and empowering them as individuals.

The purposes of the study were to (a) investigate the applicability of a leadership development model, derived from outside the field of education, to teacher leadership development, (b) identify elements of a specific professional development program that facilitated the development of science teacher leaders, and (c) consider the implications of the findings for the professional development of science teachers as well as those in other subject areas.

Selection of Cases. Three science teachers who became teacher leaders within the context of the SCI-LINK program, were selected for study, using a multiple-case, replication design, as described by Yin (1994). In this design multiple cases are considered as one would consider multiple experiments. The design is based on the logic of replication, not the logic of sampling. Each case is a separate study in which evidence is sought in regard to a proposition or claim.We chose three teachers who had emerged as leaders from different backgrounds and with different teaching experiences. After having evidence that the teacher had become a teacher leader, we asked, "How did this person become a teacher leader?"

Data Collection. Data were collected from multiple sources in order to provide the basis for triangulation of findings, i.e., corroboration of data from one source by data from other sources. Data sources were the following.

Interviews of Teachers. Individual, in-depth interviews were conducted with each of the

three teachers (the three cases) using Seidman's methods (Seidman, 1991). At the time of the interviews we were not testing hypotheses but seeking to "understand the experience of other people and the meaning they make of that experience (p. 3). Each teacher responded to the same set of questions about her teaching experience, her current teaching situation, and her experience in the SCI-LINK Project. After answering these questions, each teacher was asked to reflect on her experience, on the factors involved in her transition from classroom teacher to teacher leader, and on the meaning of changes that had occurred. Each teacher was invited to clarify or amplify her comments and to discuss any aspect of the project or her experience with it. Interviews were taped and transcribed. Analysis of the texts followed Seidman's advice that "[[t]he first step in reducing the text is to read it and mark with brackets the passages that are interesting" (Seidman, 1991, p. 89). The next step was to search for patterns and connections. It was at this point that we recognized similarities in development across the three cases and turned to the Palus and Drath model as a framework for interpreting our data.
In addition to the formal, focused interviews, informal conversations and open-ended questions provided additional data. The written analysis was then submitted to the respondent for review; corrections and/or revisions, if any, were incorporated into the final manuscript. Names of the three teachers have been changed to preserve anonymity.

Interviews of Colleagues. Observation or comments about current leadership activities or positions were solicited from peers of the teachers treated as cases.

Observation. The three teachers were observed conducting workshops or making presentations to other teachers in order to verify, by informal observation, that they were self-confident in such situations and accepted as leaders by their peers.

Documents. These include matters of public record or general knowledge, such as offices held in professional or other organizations, awards received from professional organizations, records of presentations at professional meetings, workshops presented, and other similar records.

Excerpted from Keedy, J.L. (1999). Examining teacher instructional leadership within the small group dynamics of collegial groups. *Teaching and Teacher Education*, 15(7), 785-799.

Teacher collegial groups: concepts and practice

A teacher collegial group is a variant of the larger family of "teacher study groups" (Paquette, 1987). All variants share the premise that teachers themselves are the best resource for professional growth and support as they engage themselves in changing and improving classroom practice. Teacher collegial groups (TCGs) in particular are designed to maintain a tight focus on individual teacher instructional improvement. (Six to eight teachers per group are an ideal number.) Teachers first formulate year-long foci. Examples are: setting up learning stations, conducting writing conferences, and assessing student work. Teachers then develop achievable meeting-to-meeting "game-plans" (incremental steps in achieving their year-long foci) over the course of eight meetings. At each meeting teachers update peers on progress made on game-plans conceptualized at the previous meeting. Through this collegial interaction teachers conceptualize another game-plan for experimentation during the two or three weeks preceding the next meeting. Teachers become analysts, problem-solvers, and action researchers of their classroom practice. They learn instructional strategies both individually from experimentation cycle and collectively through group interaction. Table 1 contains a year-long focus and game-plans from one teacher.

The 3 hour meeting format consists of: a critique of a journal article related to the yearlong focus as a "warm-up" activity (15 min); 20 min presentations by individual teachers on their game plans; and debriefing and journal writing (45 mins). Presentations, the core of the TCG, follow these six steps: (a) presenter year-long focus and current game-plan; (b) action research on game-plan implementation; (c) colleague analysis and feedback; (d) group assessment on progress toward the year-long focus; (3) colleague suggestions for the game-plan; and (f) presenter selection of game-plan.

Method

This particular study is part of a line of inquiry during which salient features and implications for TCGs (teacher intellectual growth [Keedy & Achilles, 1997]; department chair leadership [Keedy & Robbins, 1993]; and principal leadership [Keedy & Rogers, 1991]) have been examined. These data were collected from two TCGs conducted in the same high school in consecutive years. The unit of analysis was the TCG facilitator. This study has two purposes. First, how effective was the instructional leadership of the two TCG facilitators? That is, did each facilitator engage teachers in using their own classrooms as a basis for improving student learning? Second, what were the teacher mediation effects upon the two facilitators' leadership?

Excerpted from Khourey-Bowers, C.; Dinko, R.L., & Hart, R.G. (2005). Influence of a shared leadership model in creating a school culture of inquiry and collegiality. *Journal of Research in Science Teaching*, 42(1), 3-24.

The purpose of this study was to assess the effectiveness of a Local Systemic Change (LSC) initiative (*N*=216) at Year 2 in a 5-year plan. Key questions were: What is the extent of school and teacher involvement? What is the impact on teacher preparedness, attitudes, and beliefs? and What is the extent of institutionalization? The model of professional development used shared leadership (Lead Teachers & Study Groups) along with workshops in inquiry, content, and assessment. All teachers averaged 81 hours of participation by the end of Year 2; LTs averaged 161 hours. Longitudinal and episodic data were collected using multiple instruments, including Horizon Research Teacher Survey (Baseline and Year 2), SG and Lead Teacher surveys (Year 1 and Year 2), Context Beliefs About Teaching Science and Classroom Observation Protocol (Year 2). Gains in teachers' practices, beliefs, and professional culture (collegiality and department chair support) were measured at significance levels of .05. The results indicate that sustained and intensive professional development influences individuals and school culture.

The secondary science LSC under study, Science and Technology for Understanding Research and Networking (SATURN), builds on two prior country-wide initiatives that were designed to improve the teaching of elementary science. The objectives of SATURN are (a) to develop an articulated and sequenced science curriculum based on national and state standards, (b) to implement exemplary instructional materials, (c) to create local leadership teams, (d) to educate teachers in standards-based science content and pedagogy, and (e) to promote student achievement.

All LSC initiatives require participants to engage in a minimum of 130 hours of professional development over a 5-year time period. Saturn uses three main professional development strategies: content and pedagogy workshops, LT meetings, and SG (peer groups). The latter two strategies were selected to encourage development of a culture of shared leadership within the school community.

During the first two summers (Year 1 and Year 2), the inaugural (required) 30-hour session Intro to Reform was offered for all new participants. Both teachers and administrators participated in the session. Intro to Reform summarized major issues surrounding the science education reform movement, including influence of inquiry on curriculum and assessment, the role of national and state standards, and use of reform-oriented instructional strategies and materials. Optional workshops, each ranging from ½ day to 2 weeks in length, addressed leadership and facilitation strategies, inquiry, authentic assessment, instructional materials, science content, classroom management, and instructional technology to be selectively applied by teachers in their own practices. Inquiry strategies were a major thread in all sessions. During the first 2 years of the project, more than 160 days of workshops were conducted. Additionally, presentations about SATURN's progress and goals were routinely made at district-wide administrative meetings by members of the Program Management Team.

Teacher participants were offered various forms of professional development, including workshops, SG, and LT meetings, as appropriate. Workshops conducted during the summer and the academic year modeled the use of constructivist pedagogy in teaching content-rich workshops in geology, biology, physics, and ecology. Some workshops focused on development of performance assessment instruments, use of cooperative learning, and conceptual change teaching. Workshops in instructional technology and content-specific technology (for biology, chemistry, and physics) were also offered.

Shared leadership, an essential design element of this initiative was developed through several components. The Program Management Team (PMT), consisting of the Principal Investigators and six exemplary teacher leaders, is responsible for planning, designing, and providing many of the professional development opportunities.

A second component of shared leadership is the development of a corps of 44 LT, representing each of the 44 middle school and high schools in the county. Initially selected by their local curriculum directors using a set of screening criteria, LTs committed to take leadership roles in their districts for the 5 years of the project. Screening criteria included demonstration of (a) collegial leadership at the building or school district level, (b) initiation of curricular or instructional innovation, and (c) effective communication skills. All LTs jointly participated in 2-hour monthly meetings during the academic year. Discussion topics included facilitation strategies, self-knowledge about leadership styles, national and state standards, state-mandated proficiency tests, student work, action research, constructivism, and performance-based assessment. In turn, the LTs were responsible for meeting with their district colleagues (non-LTs) in SGs for an additional 15 hours per academic year. In study groups, LTs applied their knowledge and skills to facilitating discussions and problem-solving sessions addressing school-based concerns. While each SG self-selected their area of focus, most groups worked on curricular scope and sequence, statewide testing mandates, and standards-based instructional materials. Building principals were kept informed of the SG meeting times and topics, and were invited to attend. LTs were responsible for reporting the annual accomplishments of SGs using the LT Survey form. All teachers, LTs and non-LTs, evaluated the effectiveness of their particular SG using the Study Group Survey form.

Excerpted from Latz, A., Speirs Neumeister, K., Adams, C., and Pierce, R. (2009) Peer coaching to improve classroom differentiation: Perspectives from Project CLUE. *Roeper Review* 31: 27-39.

The present study sought to understand how a peer coach for teachers may influence teachers' understandings and abilities to facilitate differentiated lessons for high-ability students. In the current study, the researchers sought to explore the feasibility of a peer-coaching program, with the aim of enabling teachers to enhance their knowledge and application of differentiation in a mixed ability classroom. Specifically, the research questions guiding the study were (1) "What were the mentors' perceptions of their participation in a peer coaching program design to enhance teacher understanding of differentiation in a mixed ability classroom?" and (2) "What were the teachers' perceptions of their participation?"

Project CLUE (Clustering Learners Unlocks Equity) is a partnership between Ball State University and Indianapolis Public Schools. [Mentoring in Project CLUE is a strategy to] meet goal three, to provide teachers with a knowledge base with regards to best instructional practices for GT (Gifted and Talented) students and differentiation strategies, mentoring relationships were created between IPS teachers and qualified peer coaches. During the spring terms of 2004, 2005, 2006, mentors conducted in-class observations with third-, fourth-, and fifth- grade teachers on three separate occasions. Groups of teachers receiving the CLUE curriculum were provided lesson plans and training on curriculum implementation. Mentors were assigned a small number of teachers from a particular group. The mentors served not only as observers but also as colleagues or peer coaches. Each mentor/teacher duo kept in touch via phone or e-mail in order to schedule visits and discuss ideas, strategies or differentiation techniques. Teacher professional development was the primary mission of the mentoring program. The fact that the program was non-evaluative in nature was made clear to all mentors and mentored teachers. A total of 46 IPS teachers were mentored for 1 to 3 years by nine mentors. Mentors served several teachers simultaneously.

Caucasian women represented 95.2% of teachers participating, all teachers had at least 1 year of teaching experience. Mentors were recruited and selected based on affiliation with IPS schools, GT consulting experience, BSU affiliations and geographic proximity. All mentors had at least 15 years of teaching experience, ranging from 15-33 years. Each mentor received a stipend as well as travel reimbursement. Caucasian women represented 78% of mentors.

Methodology

During the spring terms of 2004, 2005, 2006 mentors conducted three in-class observations per term with each of their assigned teachers. Observations were recorded using an instrument designed specifically for this purpose: The Project CLUE Mentor Log (CML). Each pair used e-mail as a primary communication tool. A content analysis of the CML and email correspondence between teachers and mentors was conducted. The nine mentors and 46 mentored teachers were provided surveys in the spring of 2007 regarding their impressions of the program. Seven of the nine mentors returned a survey

(response rate 78%) and 30 of 46 teachers (65%). A content analysis was conducted on the survey data. Grounded theory was the basis for analysis. An outside note packet was generated in order to code data accordingly. After the coding was complete, coded data were transcribed into an electronic format and organized into thematic categories.

Excerpted from Manno, C.M., & Firestone, W. (2006). *Content is the subject: How teacher leaders with different subject knowledge interact with teachers.* Unpublished manuscript submitted for publication.

This study focused on eight teacher leaders who participated in a professional development program for teacher leaders—the Teacher Leader Institute—presented by the New Jersey math Science Partnership (NJ MSP). The NJ MSP was a consortium of two universities and 11 school districts working together to improve student achievement in mathematics and science through a variety of means. One strategy was to strengthen leadership for change, in part by helping districts to identify and prepare teacher leaders to support other changes being supported by the MSP. TLIs were held in the summers of 2003 and 2004 with follow-up activities during the year and the following summers. Districts sent cohorts of teacher leaders to develop a vision for improved math and science instruction, improve their content knowledge, and learn how to work with their peers.

A two-person team observed the 2003 TLI for two days and interviewed 18 participants. These observations were repeated during the 2004 TLI. More important, a sample of eight teacher leaders was identified to follow during the upcoming academic year to learn about a variety of issues, including how their content knowledge influenced their work as teacher leaders. Here we briefly describe the sample, methods of data collection, and data analysis strategies.

Sample

A purposive sample was selected among participants in the 2004 TLI to obtain variation on two dimensions. The most important was content expertise. A *content expert* was defined to have a minimum of an undergraduate major in the teacher leader's content area and teaching certification in that area. A non-content expert was defined to be a teacher leader without a major and certification in the content area, either mathematics or science.

Excerpted from Petzko, V.N. (2002). *Teachers in middle level schools: Implications and recommendations from a National Study*. Paper presented at the annual meeting of the Mid-South Educational Research Association, Chattanooga, TN.

The purpose of this paper is to summarize and synthesize the data on teachers as reported in a recent national study of middle level schools (Valentine, Clark, Hackmann & Petzko, 2002, *national Study of Leadership in Middle Level Schools (NSLMLS), Volume 1*). This paper begins with a summary of the characteristics of the middle level schools at the dawn of the new millennium followed by the characteristics of middle level teachers, the instructional context in which they work, and their involvement in school leadership. Implications are discussed and recommendations made with reference to several significant areas: the recruitment of future middle level teachers, the implementation of professional development programs designed to expand teacher knowledge of early adolescence, the development of skills required for teachers to be effective team members and teacher leaders, the development of curriculum which is truly interdisciplinary as well as instruction which is effectively integrated, and the assurance of mastery for all middle level students.

The research design for the NSLMLS was constructed as the third of three "decade studies" which focused on middle level schools and their leadership, sponsored by the National Association of Secondary School Principals (NASSP) (Valentine, Clark, Irvin, Keefe & Melton, 1993; Valentine, Clark, Nickerson, Keefe, 1981). Consistent with the previous NASSP studies, middle level schools were defined as those serving young adolescents in any structural combination of grades five through nine. Principals of all middle level schools in the United States were initially contacted with a letter of invitation to participate in the 2000 study, and provided with the URL and a password for the survey. The questionnaire consisted of five sections: all principals were asked to complete the first four sections and were randomly assigned to one of the four subdivisions of the final section. Over 1,400 principals completed the on-line questionnaire during the 2000 spring and summer months. Each of the major areas of study, the context and environment of middle schools, the leaders and leadership structures, educational, programs and instructional practices, and school improvement methods is report in *The National Study of Leadership in Middle Level Schools, Volume 1* (Valentine, et. al., 2002). Data explicitly pertaining to the teachers in middle level schools were extracted and analyzed for this paper.

Excerpted from Petzko, V.N. (2004). Findings and implications of the NASSP National Study of Leadership in Middle Level Schools, Volumes I and II: Teachers in middle schools. *NASSP Bulletin*, 88(638), 69-88.

This article examines and compares teachers in a national sample of middle level schools to those in a selected group of highly successful middle level schools. The context within which they work, their preparation, their level of implementation of middle level best practices, and their involvement as teacher leaders are discussed. Results show some similarities, as well as some distinct and important differences in the two sets of teachers. Recommendations are made for teacher preparation programs as well as inservice professional development programs which can increase teacher effectiveness and are consistent with the expectations of No Child Left Behind.

This paper presents a synthesis of the data from the *National Study of Leadership in Middle Level Schools, Volumes I and II* (Valentine, Clark, Hackmann, & Petzko, 2002; Valentine, Clark, Hackmann, Lucas, & Petzko, in press). The research design was constructed as the third of three "decade studies" that focused on middle level schools and their leaders, sponsored by the National Association of Secondary School Principals (NASSP).

